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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/759,684 | 01/10/2001 | Larry L. Hood | 155694-0067 | 3084 |

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EXAMINER

SHAY, DAVID M

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 04/01/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/759,684

Applicant

Hood

Examiner

J. S. H.

Group Art Unit

3739

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on December 27, 2002
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 11, 13-16, 18, & 20-23 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 11, 13-16, 18, & 20-23 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11, 13-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doss et al in combination with Schachar and Wuchinich. Doss et al teach a device which can deliver energy at 100 kHz-10MHz (see column 3, lines 46-51), with a ground pad (see figure 1, element 36 and column 3, lines 41-44), a connector arrangement as claimed (see elements 12, 16 and 20 or 12, 26 and 28 in figure 5) and a stop (see element 42 figure 5). Doss et al also teach the application of power in bursts of "about one second" (see column 3, line 50) as well as the typical corneal thickness and deseired temperature ranges to heat the tissue (see column 1, lines 38-68). Schachar teaches a system for heating the corneal stroma including a probe tip which is heated to heat the stroma wherein the last 300 to 600 microns is considered to be the tip and the shaft of the probe is considered a "spring beam" since its function is to help maintain contact with the tissue to be heated. Wuchinich teaches the use of a pulsed periodic damped waveform for coagulation. It would have been obvious to the artisan of ordinary skill to employ the power source and connections of Doss et al in the system of Schachar, since Schachar teaches no particular power source; or to employ the probe configuration of Schachar in the device of Doss et al, since this would provide a more localized application of heat to the stromal tissue; and in either case to maintain the power level at or below 1.2 watts, since the desired temperature changes to produce the effects are known, and thus the appropriate wattage would also be known, further the exact power level and duration being dependent on probe geometry and configuration, and the probe geometry of Schachar being the same as that of applicant's probe, the power requirement would be the same. Doss et al teach the desired temperature for shrinkage

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of tissue and the use of RF in the claimed frequency and time exposure range to provide the shrinkage; and to employ damped waveform, since this is the waveform used for coagulation and to employ a pulse repetition rate between 4KHz, and 12 KHz, since Wuchinich merely discloses a general pulse repetition rate; the precise repetition rate determining the temperature that the tissue will reach; and the temperature for corneal shrinkage are known as taught by Doss et al and Schachar, thus producing a device such as claimed.

Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doss et al in combination with Schachar and Wuchinich. The teachings of Schachar, Wuchinich, and Doss et al and the motivations for combination and modification thereof are essentially those already set forth above. Thus it would have been obvious to the artisan of ordinary skill to combine these old well known teachings to produce a method such as claimed.

Applicant states that the particular pulse repetition rate and other pulse parameters are critical to the invention, but gives neither specific portions of the originally filed disclosure; nor any rational upon which such an assertion can be based. Both Doss et al and Schachar teach the desired temperatures which will achieve corneal shrinkage. Thus in view of e.g. Schachar which gives no electrical parameters, but only discloses a temperatures range, one having ordinary skill in the art would clearly be able to determine the appropriate parameters to produce the desired temperature increase. Thus, in combination with the disclosure of Wuchinich which discloses frequencies within the damped waveform frequency range claimed, wherein the repetition rate is disclosed as "about 20KHz", provides a prima facie case of non-criticality of the claimed parameters.

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Applicant's arguments with respect to claims 11, 13-16, 18, and 20-22 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

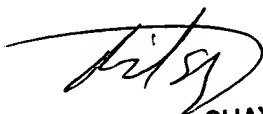
Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to david shay at telephone number 703-308-2215.

Shay/dl

March 24, 2003


DAVID M. SHAY
PRIMARY EXAMINER
GROUP 330